which are in contact with aqueous systems. The non-corrosive chemical cleaning agent may be a lower alkyl amine, e.g., dimethylamine, lower hydroxyalkyl amine, e.g., ethanolamine and pentanolamine, or cyclic dimines, e.g., 1,10-phenanthroline, 2,9-dimethyl-1,10-phenanthroline, 2,2'-bipyrindine and 4,4'-bypyridine, or combinations thereof.

SUMMARY

[0004] In one aspect, the present disclosure refers to an anti-fouling composition comprising: (a) a metallic component selected from the group of potassium nitrate, calcium nitrate, sodium nitrate, and combinations thereof; and (b) a non-metallic component selected from the group of urea, EDTA, ammonium oxalate, ammonium nitrate, ammonium acetate, ammonium sulfate, and combinations thereof; wherein the metallic component in the composition is 50 to 95% by weight and the non-metallic component in the composition is 5 to 50% by weight; wherein said composition exhibits low residue in the range of below 8%. In one example, the present disclosure refers to an anti-fouling composition comprising: (a) a metallic component selected from the group of alkali metal salt, alkaline metal salt, transitional metal salt, salt of tin, and combinations thereof; and (b) a non-metallic component selected from the group of urea, oxalic acid, succinic acid, tartaric acid, EDTA, ammonium oxalate, ammonium nitrate, ammonium acetate, ammonium sulfate, sugar, and combinations thereof. In another aspect, the present disclosure refers to a method for preparation of a composition as disclosed herein for mitigation of foulants in reactors, the method comprising the steps of (a) contacting a non-metallic component being a combination of urea and ammonium salt, or EDTA, and a metallic component with water to form a mixture; (b) removing water from the mixture to obtain a composition. The present disclosure describes an anti-fouling composition including: (a) a metallic component comprising of at least one metal salt; and (b) a non-metallic component. The present disclosure describes a method for preparation of an anti-fouling composition for mitigation of foulants in reactors, the method including the steps of: (a) contacting at least one non-metallic component and a metallic component with water to form a mixture; and (b)

I/We Claim:

1. An anti-fouling composition comprising: (a) a metallic component selected from the group of potassium nitrate, calcium nitrate, sodium nitrate, and combinations thereof; and (b) a non-metallic component selected from the group of urea, EDTA, ammonium oxalate, ammonium nitrate, ammonium acetate, ammonium sulfate, and combinations thereof; wherein the metallic component in the composition is 50 to 95% by weight and the non-metallic component in the composition is of 5 to 50% by weight; wherein said composition exhibits low residue in the range of below 8%.

2. The composition as claimed in Claim 1 for use in foulant removal.

3. A method for preparation of a composition according to claim 1 for mitigation of foulants in reactors, the method comprising the steps of:

a) contacting a non-metallic component being a combination of urea and ammonium salt, or EDTA, and a metallic component with water to form a mixture;

b) removing water from the mixture to obtain a composition.